

AMENDMENT TO THE CLAIMS

1 - 115. Canceled.

116. (Currently Amended) A method comprising:
 receiving ~~input data~~ **at least one SQL statement**, ~~[[in]]~~ **at** a computer system,
 wherein
the at least one SQL statement is configured to operate on a first table
and a second table, and
the at least one SQL statement comprises an SQL statement that is
configured to join the first table and the second table;
~~the input data comprises a query, a first table, and a second table;~~
automatically generating, using a processor of the computer system, a set of SQL
 statements to query the first table and the second table, wherein
 the set of SQL statements are based, at least in part, upon the ~~query~~ **at least**
one SQL statement,
 the first table and the second table are stored in a computer-readable storage
 medium **of the computer system**,
 the **automatically** generating uses a relationship between the first table and
 the second table to ~~construct~~ **generate** the set of SQL statements,
 and
 the set of SQL statements comprises SQL statements other than ~~[[a]]~~ **the at**
least one SQL statement ~~that joins the first and second tables;~~
producing a first result set by querying the first table using the set of SQL
 statements ~~to produce a first result set~~, wherein
 the querying the first table is performed using the processor;
producing a second result set by querying the second table using the set of SQL
 statements ~~to produce a second result set~~, wherein
 the querying the second table is performed using the processor, and
 the querying the first table and the querying the second table are performed
 without joining the first table and the second table;

joining, using the processor, the first result set and the second result set to produce a third result set; and
returning the third result set, in response to the receiving the ~~input data~~ **at least one SQL statement**.

117. (Previously Presented) The method of claim 116 wherein the relationship comprises:

a parent/child relationship between the first and second tables, wherein
one of the first and second tables is a parent table, and
if the first table is the parent table, the second table is a child table, and
if the second table is the parent table, the first table is the child table.

118. (Previously Presented) The method of claim 117 further comprising:
querying the parent table using the set of SQL statements to produce the first result set; and

using the first result set in constructing a second set of SQL statements to query the child table, wherein
the second set of SQL statements comprises SQL statements other than a second statement that joins the second table to another table.

119. (Previously Presented) The method of claim 118 further comprising:
querying the child table using the second set of SQL statements to produce the second result set.

120. (Previously Presented) The method of claim 119 wherein
the third result set depends on the querying the first table and the querying the second table.

121. (Previously Presented) The method of claim 118 wherein
the second set of SQL statements comprises:
a query statement for selecting a record having a value of a foreign key field of the second table equal to a value of a target key field in the first result set.

122. (Previously Presented) The method of claim 116 further comprising:
using the first result set in constructing a second set of SQL statements to query the
second table, wherein
the second set of SQL statements comprises SQL statements other than a
second statement that joins the second table to another table.

123. (Previously Presented) The method of claim 122 further comprising:
querying the second table using the second set of SQL statements to produce the
second result set.

124. (Previously Presented) The method of claim 123 further comprising:
returning the third result set as a result of the query of the first and second tables.

125. (Previously Presented) The method of claim 122 wherein the second set
of SQL statements comprises:
a query statement for selecting a record having a value of a foreign key field of the
second table equal to a value of a target key field in the first result set.

126. (Previously Presented) The method of claim 116 further comprising:
obtaining a search specification for the query of the first and second tables, wherein
the set of SQL statements comprises a query statement to select a record
from at least one of the first and second tables if the record satisfies
the search specification.

127. (Previously Presented) The method of claim 126 further comprising:
executing the set of SQL statements to produce the third result set; and
returning the third result set in response to the search specification.

128. (Currently Amended) A system comprising:

a processor;

a memory unit coupled to the processor;

receiving means for receiving ~~input data~~ at least one SQL statement, wherein

the at least one SQL statement is configured to operate on a first table

and a second table, and

the at least one SQL statement comprises an SQL statement that is

configured to join the first table and the second table;

~~the input data comprises a query, a first table, and a second table;~~

generating means for automatically generating a set of SQL statements to query

the first table and the second table, wherein

the set of SQL statements are based, at least in part, upon the ~~query~~ at least

one SQL statement,

the generating means uses a relationship between the first table and the

second table to ~~construct~~ generate the set of SQL statements, and

the set of SQL statements comprise SQL statements other than ~~[[a]]~~ the at

least one SQL statement ~~that joins the first and second tables;~~

determining means for determining if a parent/child relationship exists between the

first and second tables;

first ~~querying~~ producing means for producing a first result set by querying the

first table using the set of SQL statements ~~to produce a first result set;~~

second ~~querying~~ producing means for producing a second result set by querying

the second table using the set of SQL statements ~~to produce a second~~

~~result set~~, wherein

the querying the first table and the querying the second table are performed

without joining the first table and the second table;

joining means for joining the first result set and the second result set to produce a

third result set, wherein

the generating means, the determining means, the first querying means, the

second querying means and the joining means reside in the memory

unit; and

returning means for returning the third result set, in response to receiving the **input data at least one SQL statement**.

129. (Previously Presented) The system of claim 128 further comprising:
parent table determining means for determining if one of the first and second tables is a table, if the parent/child relationship exists, and configured to indicate if the first table is the parent table, that the second table is a child table, and if the second table is the parent table, that the first table is the child table, wherein
the parent table resides in the memory unit.

130. (Previously Presented) The system of claim 129 further comprising:
querying means for querying the parent table using the set of SQL statements to produce the first result set; and
using means for using the first result set in constructing a second set of SQL statements to query the child table, wherein
the second set of SQL statements comprises SQL statements other than a second statement that joins the second table to another table, and
the querying means and the using means reside in the memory unit.

131. (Previously Presented) The system of claim 130 wherein
the second querying means is configured to query the child table using the second set of SQL statements to produce the second result set.

132. (Previously Presented) The system of claim 131 wherein
the result depends on the querying the first table and the querying the second table.

133. (Previously Presented) The system of claim 130 wherein
the second set of SQL statements comprises:
a query statement for selecting a record having a value of a foreign key field of the second table equal to a value of a target key field in the first result set.

134. (Previously Presented) The system of claim 128 further comprising:
 using means for using the first result set in constructing a second set of SQL
 statements to query the second table, wherein
 the second set of SQL statements comprises SQL statements other than a
 second statement that joins the second table to another table, and
 said using means resides in the memory unit.
135. (Previously Presented) The system of claim 128 further comprising:
 obtaining means for obtaining a search specification for the query of the first and
 second tables, wherein
 the set of SQL statements comprises a query statement to select a record
 from at least one of the first and second tables if the record satisfies
 the search specification, and
 said obtaining means resides in the memory unit.
136. (Previously Presented) The system of claim 135 further comprising:
 executing means for executing the set of SQL statements to produce the third result
 set; and
 returning means for returning the third result set in response to the search
 specification, wherein
 said the executing means and the returning means reside in the memory unit.
137. (Currently Amended) A computer program product comprising:
 receiving instructions to receive **input data at least one SQL statement**, wherein
the at least one SQL statement is configured to operate on a first table
and a second table, and
the at least one SQL statement comprises an SQL statement that is
configured to join the first table and the second table;
~~**the input data comprises a query, a first table, and a second table;**~~
 generating instructions to **automatically** generate a set of SQL statements to query
 the first table and the second table, wherein

the set of SQL statements are based, at least in part, upon the ~~query~~ **at least one SQL statement**,

the generating instructions are configured to use a relationship between the first table and the second table, and

the set of SQL statements comprises SQL statements other than ~~[[a]] the at least one SQL statement that joins the first and second tables;~~
~~[[and]]~~

first ~~querying producing~~ instructions to ~~query produce a first result set by querying~~ the first table using the set of SQL statements ~~to produce a first result set;~~

second ~~querying producing~~ instructions to ~~query produce a second result set by querying~~ the second table using the set of SQL statements ~~to produce a second result set~~, wherein

the querying ~~instructions to~~ the first table and the querying ~~instructions to the~~ second table are performed without joining the first table and the second table;

joining instructions to join the first result set and the second result set to produce a third result set;

returning instructions to return the third result set, in response to receiving the ~~input data~~ **at least one SQL statement**; and

a computer-readable storage medium, wherein

the computer program product is encoded in the ~~computer-readable~~ **computer-readable** storage media.

138. (Currently Amended) The computer program product of claim 137 wherein the relationship comprises:

a parent/child relationship between the first and second tables, wherein

one of the first and second tables is a parent table, ~~[[and]]~~

if the first table is the parent table, the second table is a child table, and

if the second table is the parent table, the first table is the child table.

139. (Previously Presented) The computer program product of claim 138 further comprising:
querying instructions configured to query the parent table using the set of SQL statements to produce the first result set; and
using instructions configured to use the first result set in constructing a second set of SQL statements to query the child table, wherein
the second set of SQL statements comprises SQL statements other than a second statement that joins the second table to another table.

140. (**Currently Amended**) The computer program product of claim 139 wherein
the ~~second~~ querying the second table ~~instructions are configured to query~~
queries the child table using the second set of SQL statements to produce the second result set.

141. (Previously Presented) The computer program product of claim 140 wherein
the third result set depends on the querying the first table and the querying the second table.

142. (Previously Presented) The computer program product of claim 139

wherein

the second set of SQL statements comprises:

a query statement for selecting a record having a value of a foreign key field
of the second table equal to a value of a target key field in the first
result set.

143. (Previously Presented) The computer program product of claim 137

further comprising:

using instructions configured to use the first result set to construct a second set of

SQL statements to query the second table, wherein

the second set of SQL statements comprises SQL statements other than a
second statement that joins the second table to another table.

144. (Previously Presented) The computer program product of claim 137

further comprising:

obtaining instructions configured to obtain a search specification for the query of
the first and second tables, wherein

the set of SQL statements comprises a query statement to select a record
from at least one of the first and second tables if the record satisfies
the search specification.

145. (Previously Presented) The computer program product of claim 144

further comprising:

executing instructions configured to execute the set of SQL statements to produce
the third result set; and

returning instructions configured to return the third result set in response to the
search specification.

146. (Currently Amended) A computer system comprising:

a processor to execute instructions; and

a memory to store the instructions, wherein

the memory is coupled to the processor, and

the instructions comprise:

receiving instructions configured to receive ~~input data~~ at least one

SQL statement, ~~[[in]]~~ at a computer system, wherein

the at least one SQL statement is configured to operate on
a first table and a second table, and

the at least one SQL statement comprises an SQL
statement that is configured to join the first table
and the second table;

~~the input data comprises a query, a first table, and a~~
~~second table;~~

generating instructions configured to automatically generate a set of
SQL statements to query the first table and the second table,
wherein

the set of SQL statements are based, at least in part, upon the
query at least one SQL statement,

the generating instructions use a relationship between ~~[[a]]~~
the first table and ~~[[a]]~~ the second table to ~~construct~~
generate the set of SQL statements, and

the set of SQL statements comprises SQL statements other
than ~~[[a]]~~ the at least one SQL statement ~~that joins~~
~~the first and second tables,~~

first ~~querying producing~~ instructions to ~~query produce a first~~
result set by querying the first table using the set of SQL
statements ~~to produce a first result set;~~

second ~~querying producing~~ instructions to ~~query produce a~~
second result set by querying the second table using the set
of SQL statements ~~to produce a second result set,~~ wherein

the querying instructions to the first table and the querying instructions to the second table are performed without joining the first table and the second table;
 joining instructions to join the first result set and the second result set to produce a third result set; and
 returning instructions to return the third result set, in response to receiving the ~~input data~~ **at least one SQL statement**.

147. (Currently Amended) The computer system of claim 146 wherein the relationship comprises:

a parent/child relationship between the first and second tables, wherein

one of the first and second tables is a parent table, **[[and]]**

if the first table is the parent table, the second table is a child table, and

if the second table is the parent table, the first table is the child table.

148. (Previously Presented) The computer system of claim 147 wherein the instructions further comprise:

querying instructions configured to query the parent table using the set of SQL statements to produce the first result set; and

using instructions configured to use the first result set in constructing a second set of SQL statements to query the child table, wherein
 the second set of SQL statements comprises SQL statements other than a second statement that joins the second table to another table.

149. (Currently Amended) The computer system of claim 148 wherein the ~~second~~ querying **the second table** ~~instructions are configured to query~~ **queries** the child table using the second set of SQL statements to produce the second result set.

150. (Previously Presented) The computer system of claim 149 wherein the third result set depends on the querying the first table and the querying the second table.

151. (Previously Presented) The computer system of claim 148 wherein the second set of SQL statements comprises:

a query statement for selecting a record having a value of a foreign key field of the second table equal to a value of a target key field in the first result set.

152. (Previously Presented) The computer system of claim 146 wherein the instructions further comprise:

using instructions configured to use the first result set to construct a second set of SQL statements to query the second table, wherein the second set of SQL statements comprises SQL statements other than a second statement that joins the second table to another table.

153. (**Currently Amended**) The computer system of claim 146 wherein the instructions further comprise:

obtaining instructions configured to obtain a search specification for the **query querying** of the first and second tables, wherein the set of SQL statements comprises a query statement to select a record from at least one of the first and second tables if the record satisfies the search specification.

154. (Previously Presented) The computer system of claim 154 wherein the instructions further comprise:

executing instructions configured to execute the set of SQL statements to produce the third result set; and
returning instructions configured to return the third result set in response to the search specification.

155. (Currently Amended) A computer system comprising:

- a processor;
- a memory unit coupled to the processor;
- a receiving module configured to receive ~~input data~~ at least one SQL statement,
 wherein
the at least one SQL statement is configured to operate on a first table
and a second table, and
the at least one SQL statement comprises an SQL statement that is
configured to join the first table and the second table;
~~the input data comprises a query, a first table, and a second table;~~
- a generating module configured to automatically generate a set of SQL statements
 to query the first table and the second table, wherein
 the set of SQL statements are based, at least in part, upon the ~~query~~ at least
one SQL statement,
- the generating module uses a relationship between ~~[[a]]~~ the first table and
~~[[a]]~~ the second table, and
- the set of SQL statements comprises SQL statements other than ~~[[a]]~~ the at
least one SQL statement that joins the first and second tables;
- a first ~~querying producing~~ module configured to ~~query produce a first result set~~
by querying the first table using the set of SQL statements ~~to produce a~~
~~first result set;~~
- a second ~~querying producing~~ module configured to ~~query produce a second~~
result set by querying the second table using the set of SQL statements ~~to~~
~~produce a second result set~~, wherein
 the ~~query~~ querying of the first table and the ~~query~~ querying of the second
 table are performed without joining the first table and the second
 table;
- a joining module configured to join the first result set and the second result set to
 produce a third result set, wherein
 the generating module, the determining module, the first ~~querying~~
producing module, the second ~~querying producing~~ module and the

joining ~~means~~ module reside in the memory unit; and
 a return output data module configured to return the third result set, in response to
 receiving the ~~input data~~ at least one SQL statement.

156. (Currently Amended) The computer system of claim 155 wherein the relationship comprises:

a parent/child relationship between the first and second tables, wherein
 one of the first and second tables is a parent table, ~~[[and]]~~
 if the first table is the parent table, the second table is a child table, ~~[[and]]~~
 if the second table is the parent table, the first table is the child table, and
 the parent table resides in the memory unit.

157. (Previously Presented) The computer system of claim 156 further comprising:

a querying module configured to query the parent table using the set of SQL
 statements to produce the first result set; and
 a using module configured to use the first result set in constructing a second set of
 SQL statements to query the child table, wherein
 the second set of SQL statements comprises SQL statements other than a
 second statement that joins the second table to another table, and
 the querying module and the using module reside in the memory unit.

158. (Currently Amended) The computer system of claim 157 wherein the ~~second~~ querying ~~module configured to query~~ the second table queries the child table using the second set of SQL statements to produce the second result set.

159. (Previously Presented) The computer system of claim 158 wherein the third result set depends on the querying the first table and the querying the second table.

160. (Previously Presented) The computer system of claim 157 wherein the second set of SQL statements comprises:

a query statement for selecting a record having a value of a foreign key field of the second table equal to a value of a target key field in the first result set.

161. (Previously Presented) The computer system of claim 155 further comprising:

a using module configured to use the first result set to construct a second set of SQL statements to query the second table, wherein the second set of SQL statements comprises SQL statements other than a second statement that joins the second table to another table, and said using module resides in the memory unit.

162. (Previously Presented) The computer system of claim 155 further comprising:

an obtaining module configured to obtain a search specification for the query of the first and second tables, wherein the set of SQL statements comprises a query statement to select a record from at least one of the first and second tables if the record satisfies the search specification, and said obtaining module resides in the memory unit.

163. (Previously Presented) The computer system of claim 162 further comprising:

an executing module configured to execute the set of SQL statements to produce the third result set; and
a returning module configured to return the third result set in response to the search specification, wherein said the executing module and the returning module reside in the memory unit.